Notes: Streams

- Streams begin in the mountains (drainage basin) as the water flows to the lowest point. [Fraser River Watershed]
- In mountains streams form "V-shaped" valleys by cutting down and then mass wasting on sides.
- Streams meander initially because the water is going around an obsticle, then because of how the water hits the outside (eroding) and slows on the inside of the curve (depositing) [fig 14.7 + 14.17]

- Channel shape (cross-section)

Straight part

on curved part

- when streams reach more level areas, near ocean or lake, they start to slow and deposit materials forming:
  ↑ heaviest first
  - braided streams - bunch of meandering trickles

  - delta - pile of accumulated sediment at the mouth of a river as it flows into lake or ocean.
  - alluvial fan - as stream leaves mountains and comes suddenly to flat land, it drops its load on dry land; a delta on land.

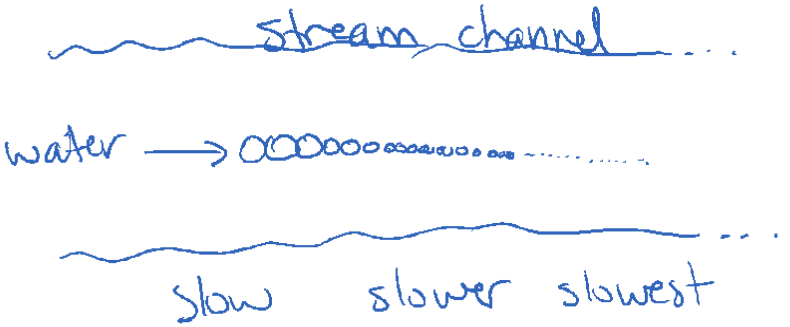
- Load types...
  - bed load - rolled along the stream bed, heavier pieces.
  - suspended load - supported by flowing water as is moved along
  - dissolved load - completely dissolved in the water (solution)

the water (solution)

note: saltation is a hopping process by which intermediate mass particles move

Sorting:

- as a stream slows down, it selectively drops the heaviest materials first, then slows more, drops next heaviest, etc...
(wind does the same except with finer, smaller particles so it is very well sorted)



Stream particles are well sorted and rounded.

- if all else is equal then:
  - a bigger load (capacity) = more erosion and deposition
  - a steeper gradient (slope) → move faster = more erosion + dep.
  - more discharge (water) = " " "
  - a weaker channel composition = " " "

- streams form asymmetrical ripple marks

flow →

ocean beach - water flows back and forth, making symmetrical ripple marks

Practice:
- pg 10 green handouts
- pg 5-8 white workbook